

10/539618

JC17 Rec'd PCT/PTO 17 JUN 2005

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1-12 (canceled).

13. (new): A method of correcting at least one parameter to be corrected of a complex digital signal ( $s_{er}$ ,  $d$ ) comprising:

decomposing a signal into ~~two signals~~, an envelope ( $e_{er}$ ) signal and a phase ( $p_{er}$ ) signal,

decomposing the corrector  $c$  to be applied to the parameter of the envelope signal, said corrector being obtained by searching, among predetermined values, for the value of the corrector corresponding to the minimum of the out-of-band noise power ( $N_h$ ) of the output signal of a digital signal processing chain comprising a correction as a function of said corrector.

14. (new): A loop for correcting at least one parameter to be corrected of a complex digital signal ( $s_{er}$ ,  $d$ ) comprising:

an input on which it receives the digital signal ( $s_{er}$ ,  $d$ ),

a calculation system linked directly or indirectly to the input,

a correction device deployed in a chain for processing the digital signal, and linked to the calculation system which provides at least one corrector ( $c$ ),

the calculation system comprising:

decomposing the signal into an envelope ( $e_{er}$ ) signal and a phase ( $p_{er}$ ) signal, and

decomposing the corrector  $c$  to be applied to each parameter to be corrected ( $p_c$ ) of the envelope signal by searching, among predetermined values, for the value of the corrector corresponding to the minimum out-of-band noise power ( $N_h$ ) of the output signal of a digital signal processing chain comprising a correction as a function of said corrector.

15. (new): The correction loop as claimed in the claim 14, wherein the input is the only input.

16. (new): The correction loop as claimed in the claim 14, wherein the parameters to be corrected ( $p_c$ ) comprise a delay and the correctors ( $c$ ) comprise an inverse delay.

17. (new): The correction loop as claimed in the claim 14, wherein the parameters to be corrected ( $p_c$ ) comprise an offset of the envelope signal with respect to the phase signal of the digital signal and the correctors ( $c$ ) comprise an inverse offset.

18. (new): The correction loop as claimed in the claim 14, wherein the parameters to be corrected ( $p_c$ ) comprise a nonlinearity of the envelope signal, and the correctors ( $c$ ) comprise a precorrection.

19. (new): The correction loop as claimed in the claim 14, wherein the digital signal is a modulated digital signal ( $S_{RF}$ ) and the loop comprises:

a demodulator between the input and the calculation system,  
a correction device intended to be deployed in a modulator with which the demodulator is associated.

20. (new): A transmitter comprising a modulator and the correction loop as claimed in the claim 19.

21. (new): The transmitter as claimed in claim 20, wherein the transmitter is a linear transmitter.

22. (new): The transmitter as claimed in claim 20, wherein the transmitter comprises separate means of processing of the phase and of the envelope of the modulated digital signal.

23. (new): The transmitter as claimed in the claim 22, wherein the modulator comprises separate means of processing of the envelope and of the phase and a multiplier of the envelope signal and of the phase signal at the output implementing the method of Kahn.

24. (new): The use of the transmitter as claimed in claim 20 for the radio broadcasting or telebroadcasting of digital signals.